Data Protector Express
Installation Guide

Legal and notice information

Contents

Before you begin

Intended audience

This guide is intended for new and experienced users of Data Protector Express and Data Protector Express Basic. For new users, chapter 1 introduces the concepts and architecture of Data Protector Express and Chapter 2 demonstrates the process of completing the first backup job and first restore job. Subsequent chapters explain the more advanced features of Data Protector Express.

Editions

This guide describes the features of Data Protector Express. Data Protector Express Basic is a reduced feature edition of Data Protector Express. Not all of the features described in this guide are available in Data Protector Express Basic.

> **NOTE:**
> Data Protector Express Basic can be upgraded to Data Protector Express with the purchase of the appropriate license key from your HP partner.

Related documentation

The /doc directory on the Data Protector Express CD-ROM contains the following printable documentation:

- A Short Guide to Successful Tape Backup
- ESD and Webware License Mangement Guide

> **NOTE:**
> To view or print this documentation, Adobe Acrobat Reader (version 4.0 or higher) must be installed on your Windows or X Window (Linux) computer. If not currently installed, you can install it from the Adobe Acrobat Reader website at http://www.adobe.com.

You can find these documents from the Storage Software page of the HP Business Support Center website:

http://www.hp.com/support/manuals

Document conventions and symbols

Convention	Element
Blue text: Document conventions and symbols	Cross-reference links and e-mail addresses
Blue, underlined text: http://www.website.com	Website addresses
Bold text	- Keys that are pressed - Text typed into a GUI element, such as a box - GUI elements that are clicked or selected, such as menu and list items, buttons, tabs, and check boxes

Convention	Element
Italic text	Text emphasis
`Monospace` text	• File and directory names • System output • Code • Commands, their arguments, and argument values
`Monospace, italic` text	• Code variables • Command variables

⚠ WARNING!

Indicates that failure to follow directions could result in data loss.

△ CAUTION:

Indicates that failure to follow directions could result in damage to equipment or data.

IMPORTANT:

Provides clarifying information or specific instructions.

NOTE:

Provides additional information.

☼ TIP:

Provides helpful hints and shortcuts.

Release notes

Release notes are included with every release and service pack. Before using Data Protector Express, please read the release notes for additional information. The release notes are available in HTML format in the root directory of the Data Protector Express CD-ROM.

HP technical support

For worldwide technical support information, see the HP support website:

http://www.hp.com/support

Before contacting HP, collect the following information:

• Product model names and numbers
• Technical support registration number (if applicable)
• Product serial numbers
• Error messages

- Operating system type and revision level
- Detailed questions

1 Installation Overview

In this section

- System Requirements
- Supported platforms
- Before You Install Data Protector Express
- Installing Data Protector Express
- Upgrading Data Protector Express

System Requirements

Most operating systems list both minimum and recommended system requirements. As a general rule, if your system meets the minimum requirements for the operating system, it will also meet the minimum system requirements for Data Protector Express.

Depending on your specific requirements, your system should also meet the following:

- The Data Protector Express Catalog requires additional space. When you install Data Protector Express on the machine that will serve as the Backup Server, HP recommends that you select a hard drive other than the default drive. A disk drive with at least an additional 20 GB is recommended.
- VGA display with 1024x768 resolution, for use with Windows or an X Window System
- CD drive for Data Protector Express installation (recommended)
- CD or DVD writer for use with the Data Protector Express Bare Metal Disaster Recovery (recommended)
- Bootable tape backup device for use with Data Protector Express Bare Metal Disaster Recovery (optional)

Supported platforms

Data Protector Express is supported and has been tested with many different versions of Windows and Linux operating systems. For a current list of supported platforms, visit http://www.hp.com/go/dataprotectorexpress.

> **NOTE:**
> We always recommend that you install the latest service packs and updates for your operating system.

Before You Install Data Protector Express

Even though Data Protector Express is easy to install, you must first make some important decisions about how to implement Data Protector Express. Before you install Data Protector Express, you should consider the following subjects.

Data Protector Express Backup Domain

When you install Data Protector Express, you will define a Data Protector Express Backup Domain. Each Backup Domain includes one Backup Server — a computer that contains the Data Protector Express catalog. Each Data Protector Express Backup Server may also include other computers, including Media Servers and clients.

On a very small Backup Domain, all three components (Backup Server, Media Server, and client) can be on the same machine.

Since Data Protector Express is scalable, you can easily upgrade your license whenever you need to expand the Data Protector Express Backup Domain.

To define the Backup Domain, identify:

- The computer that will be the Backup Server.
- The Media Servers that will belong to the Backup Server.
- The clients that will belong to the Backup Domain.

Data Protector Express Service

The Data Protector Express service lets you run scheduled jobs automatically, whether or not an operator is present. The Data Protector Express service is called a service on Windows and a daemon on Linux systems.

When installed, the Data Protector Express service automatically loads at system startup. It runs in the background *without a user interface*. At any time, you can start the Data Protector Express user interface. Later, when you close the Data Protector Express user interface, the Data Protector Express service continues to run in the background.

If the system loses power, the Data Protector Express service automatically restarts following system restart. Therefore, your backup jobs still run as scheduled.

You must install Data Protector Express on each computer that will be included in an automatic backup schedule.

For information on configuring and using the Data Protector Express service, refer to the *Data Protector Express User Guide.pdf*.

Installing Data Protector Express

1. Install all of your backup devices according to the manufacturer's directions
2. Install Data Protector Express on the Backup Server machine.
3. Install Data Protector Express on the remaining Media Servers and clients in the Backup Domain. Supply the hostname or IP address of the Backup Server when installing the clients.

Upgrading Data Protector Express

1. Upgrade Data Protector Express on the Backup Server.
2. Each client in the Backup Domain will upgrade itself automatically.

> **NOTE:**
>
> There is a Backup Domain configuration setting to disable automatic updates that is on by default. If you turn this option off you will need to manually update each client. Clients running older versions of Data Protector Express will not operate with a Backup Server running a newer version.

2 Installing Data Protector Express

In this section

Launching the Installer

On Windows

You must have Administrator access to install Data Protector Express.

1. Insert the Data Protector Express CD-ROM in your CD drive. The Data Protector Express Installer launches automatically.

2. If it does not launch automatically, access the root directory on the Data Protector Express CD-ROM and double-click **setup.exe**.

On Linux

You must install Data Protector Express as the root user.

1. Insert the Data Protector Express CD-ROM.

2. If auto-mount is not enabled on your system, you must mount the CD-ROM yourself. Refer to the following example for some Linux systems:

   a. Access a terminal window.

   b. Type
      ```
      mount /dev/cdrom /mnt/cdrom
      ```
      and press **Enter**.

   c. Wait a moment for Linux to mount the CD-ROM.

3. Access the root directory on the CD-ROM. For example, on some Linux systems, type
   ```
   cd /mnt/cdrom
   ```
   and press **Enter** to access the root directory on the installation CD-ROM.

   NOTE:

   If Data Protector Express is running, you must close it before continuing.

4. To run the installation program, type
   ```
   ./install
   ```
   as the root user and press **Enter**.

Using the Data Protector Express Installer

Installing

To install Data Protector Express:

1. Launch the installer.

2. Select a language.

3. Read and accept the End User Licence Agreement.

4. Decide whether this machine will be the Backup Server or a client of the Backup Domain and select the appropriate radio button.

   If this is the Backup Domain, click the **Next** button.

   If this is a client, enter the hostname or IP addess of the Backup Server already installed and click the **Next** button.

   Optionally, you may change location of the install folder prior to leaving the page.

5. Installation will proceed. Progress is reported on the screen. On the Backup Server, once installation is complete the Administrator will launch automatically. You may see a flashing red **Alert** button in the bottom right corner of the Administrator. If you do, see Licenses to install a license key. Or you an continue to use the product in evaluation mode.

Upgrading

> **NOTE:**
>
> You do not have to uninstall Data Protector Express before upgrading to a newer version. However, the previous version of Data Protector Express and the previous catalog will be updated to the new format, and will no longer be available in the old format.
>
> To upgrade Data Protector Express:

1. Launch the installer.

2. Select **Upgrade** Data Protector Express.

3. Read and accept the End User Licence Agreement.

4. Installation will proceed. Progress is reported on the screen. Once complete the Administrator will launch automatically.

Removing

To remove Data Protector Express:

1. Launch the Data Protector Express installer.

2. Select **Remove** Data Protector Express.

3. If you want to retain your catalog or your data backed up to disk, deselect the appropriate checkboxes before clicking the **Next** button. If you leave these items intact they can be reused in a different installation.

4. Confirm that you want to remove Data Protector Express.

5. Data Protector Express will be removed from your system. Any files that cannot be removed during the uninstall process will be removed during the next reboot. You do not need to reboot immediately.

3 Post Installation Settings

In this section

- Passwords
- Licenses

After you install Data Protector Express, you can restrict access to it by setting a password or obtain access to additional options by adding licenses.

Passwords

When you start Data Protector Express, it has no password for the Admin user, which has access to all data inside the Data Protector Express Backup Domain.

To set a password for the Admin user

1. Start the Administrator.
2. Select **File —> > Domain Configuration** menu item.
3. Click the **Domain Security** link in the Navigation bar.
4. Select the **Enable advanced domain security** option and click **OK**.
5. Expand the **Advanced** link in the **Navigation** bar in the top left corner of the screen and click the **Security** link.
6. Select the **Admin** icon in the main part of the screen and click the **Change Password** command in the command toolbar.
7. Leave the old password blank and enter a new password. Click **OK**.

Licenses

When you purchase Data Protector Express, you purchase one base license for each Data Protector Express Backup Domain. The base license includes the Data Protector Express catalog and one or more client or server machines, depending on the type of license. You can also purchase licenses for additional clients.

Data Protector Express uses a system of key codes that represent your licenses to use all Data Protector Express features as well as its options. When you purchase and install Data Protector Express key codes, you can use Data Protector Express and all licensed options with no expiration date. When you install Data Protector Express as an evaluation, all optional features are installed that are supported by the base license. You can use these features during a 60-day evaluation period. To continue using these features after the evaluation period has expired, you must purchase a license for them. When you enter a license key code, the applicable features or options are changed from evaluation to permanent licenses.

For reference, each license key has a type and serial number, which is assigned to your order.

You can see all attributes of a license key in the License window.

To enter a new key code

1. Start Data Protector Express Administrator.
2. Click on the **Licenses** icon in the main screen or select the **Licenses** command from the **Help** menu.
3. Select the command **New** to add a new license.

4. Enter the key code for the license and click **OK**.

   A new license object is created, which is listed as a new item in the **License** window.

5. To see a summary of all installed licenses deselect any licenses and select the **Status** command to open the **Properties of Licenses** window.

5.

4 Installation Notes

Linux Installation Notes

SCSI generic module required for device support

If you are running Data Protector Express under Linux, you must install the sg (SCSI generic) module for device support in Data Protector Express.

To verify that this module is loaded and running, issue the following command at a terminal prompt:

```
lsmod
```

sg should be listed in the list of running modules. If it is not listed, you must manually load this module so that Data Protector Express can communicate with tape devices. Consult your operating system documentation for instructions on manually loading the sg module.

Red Hat Enterprise Linux EXT3 hardware issue

If you are running Data Protector Express on Red Hat Enterprise Linux (RHEL) v3 or v4, a known hardware issue exists when you use the EXT3 journal or file system on certain hardware configurations. Update your Red Hat Enterprise Linux v3 or v4 installation to the latest kernel and jbd patches listed below to resolve this issue:

- jbd-1.1-multiarch-1
- kernel-2.6.9-11.EL (RHEL 4)
- kernel-2.4.21-37.EL (RHEL 3)

IDE/ATAPI Support

Data Protector Express supports the use of IDE/ATAPI tape devices. If your Linux distribution compiled the ide-tape.o module into the kernel, update the configuration file and verify the configuration to access these devices.

> **NOTE:**
> When Data Protector Express runs, it loads the ide-scsi module. This may cause the ide-cdrom module to fail to load, which may affect CD operation. To work around this problem, mount the CD as a SCSI device, even though it is an IDE device.

To update the configuration file and verify the configuration (LILO)

1. Add the following line to the end of each boot selection section in the `/etc/lilo.conf` file:

Master on primary IDE	`append="hda=ide-scsi"`
Slave on primary IDE	`append="hdb=ide-scsi"`
Master on secondary IDE	`append="hdc=ide-scsi"`
Slave on secondary IDE	`append="hdd=ide-scsi"`

2. Update your system configuration, using the following command:

```
lilo
```

3. Save the file and reboot your system.

4. Verify that the change has been implemented, using the following command:

```
cat /proc/cmdline
```

5. If hda=ide-scsi (or similar) does not appear, you did not update the configuration file correctly. Start over with Step 1 above.

6. Verify that your system detects the tape device, using the following command:

```
cat /proc/scsi/scsi
```

To update the configuration file and verify the configuration (GRUB)

1. Locate the `grub.conf` file. This file may also be called `menu.lst`. Possible locations include `/boot/grub` and `/etc`.

2. Add the appropriate text from the following to the end of each kernel image line in the `grub.conf` file:

Master on primary IDE	`hda=ide-scsi`
Slave on primary IDE	`hdb=ide-scsi`
Master on secondary IDE	`hdc=ide-scsi`
Slave on secondary IDE	`hdd=ide-scsi`

Each kernel image line will read similar to the following:

```
kernel /vmlinuz-2.2.6-2 ro root=/dev/hda3 hda=ide-scsi
```

3. Save the file and reboot your system.

4. Verify that the change has been implemented, using the following command:

```
cat /proc/cmdline
```

5. If hda=ide-scsi (or similar) does not appear, you did not update the configuration file correctly. Start over with step 1 above.

6. Verify that your system detects the tape device, using the following command:

```
cat /proc/scsi/scsi
```

Libraries missing from Linux distribution

Problem:

I cannot launch the X Window System version of Data Protector Express. It gives me the following message:

```
error while loading shared libraries libstdc++.so.5
```

Cause: Either the libstdc++ library is missing from your version of Linux distribution or the wrong version of the library is installed.

Solution: Install the missing library.

1. Identify the required version of the library:

   a. Navigate to the Data Protector Express directory in a terminal window. The default directory is `/usr/local/hp/dpx`.

   b. Type `lld dpadmin.bin` from the command prompt and press **Enter**. A list of libraries required for Data Protector Express appears.

   The name of the missing libstdc++ library will be similar to `libstdc++.so.5`.

2. Contact your Linux distributor for the missing library.

📝 NOTE:

   If you are using RedHat Linux EL 4, you can use an RPM package called "compat-libstdc++.rpm" to install the necessary library.

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3. Install the library according to the documentation provided by your distributor.

4. Try to launch the X Window System version of Data Protector Express. It should work properly.

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